



CRONUS

CRONUS

BROCHURE



诚信 | 精细 | 创新 | 共赢
Integrity | Meticulosity | Innovation | Win-win

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Founded in 1973

上海克洛诺斯机械有限公司
Shanghai Cronus Machinery Co., Ltd

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公司简介

Company Profile

上海克洛诺斯机械有限公司位于中国上海，是桂林矿山机械股份有限公司（简称“桂矿”）的全资子公司。“桂矿”成立于1973年，专注于粉体设备制造五十余年。我们致力于矿物设备的研发、制造和销售，产品包括CRRM雷蒙磨粉机、CRGM超细磨粉机、CRLMS超细立式辊磨机、氢氧化钙生产线、制砂机等。

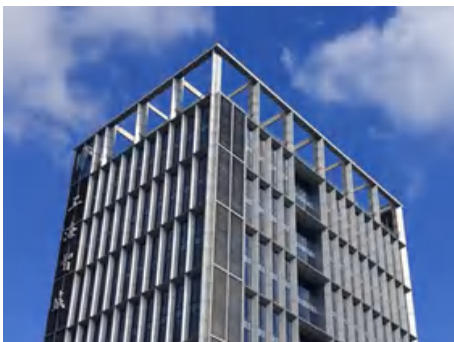
Shanghai Cronus Machinery Co., Ltd. is located in Shanghai, China. We are a wholly-owned subsidiary of Guilin Mining Machinery Co., LTD. ("Guikuang").

"Guikuang" was founded in 1973, focusing on powder equipment for more than 50 years. We are committed to the research, manufacture and sales of mineral equipment. Such as CRRM Raymond Mill, CRGM Ultra-fine Grinding Mill, CRLMS Ultra-fine Vertical Roller Mill, Calcium Hydroxide Production Line, Sand Making Machine, etc.



总部和办公室 Headquarters and Offices

生产车间 Workshop



CRRM Raymond Mill



CRRM新式雷蒙磨粉机是非金属矿粉体加工的主要设备之一。该磨粉机由主机、分级机、鼓风机、管道系统、脉冲除尘器、电控系统以及鄂式破碎机、给料机、提升机等配套设备组成。

CRRM new Raymond mill is one of the main equipment for non-metallic mineral powder processing. The mill is composed of a main machine, a classifier, a blower, a pipeline system, a pulse dust collector, an electronic control system, and supporting equipment such as a jaw crusher, a feeder, and an elevator.



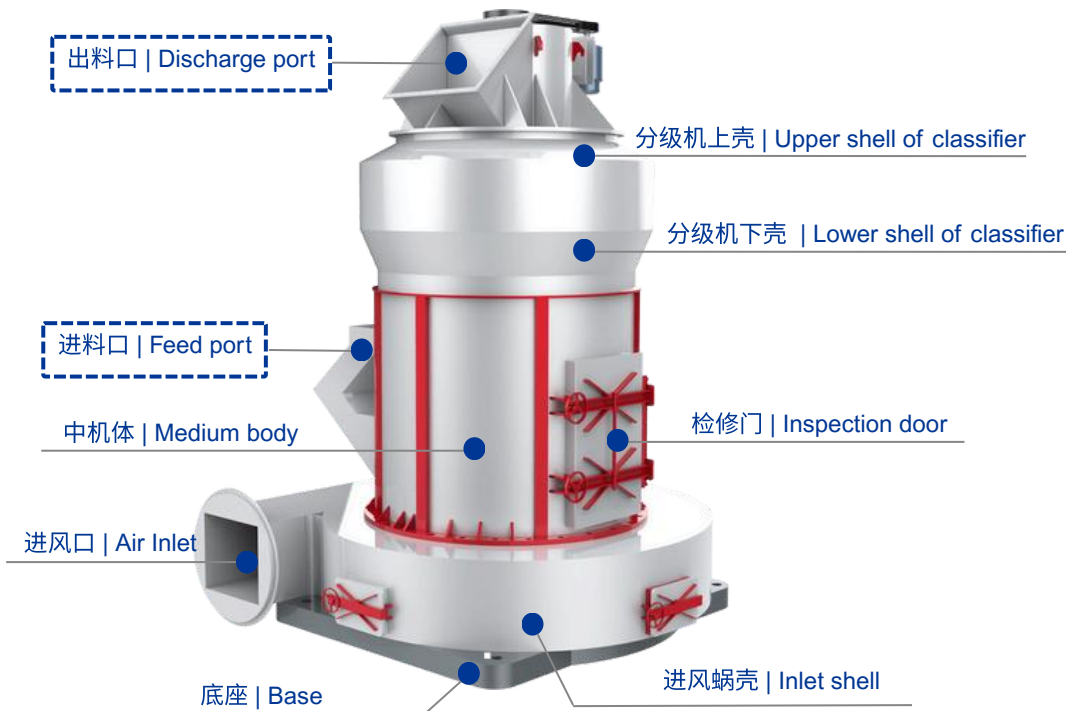
CRRM系列雷蒙磨粉机

CRRM Series Raymond Mill

■ 产品介绍 | Product Introduction

CRRM雷蒙磨粉机是上海克洛诺斯机械有限公司的旗舰产品，其核心技术源自母公司1973年引进的国际先进技术图纸，历经50余年持续创新与技术迭代，已成为行业标杆产品。

CRRM Raymond Mill is the flagship product of Shanghai Cronus Machinery Co., Ltd., with core technologies originating from original international blueprints introduced by our parent company since 1973. After 50+ years of continuous innovation, it has become an industry benchmark.



■ 应用领域 | Application Field

该机可广泛适用于建材、化工、冶金、矿山、磨料、耐材、陶瓷、钢铁、电力、煤炭等行业物料的加工。可粉磨石英、长石、方解石、滑石、重晶石、萤石、稀土、大理石、陶瓷、铝矾土、磷矿石、氧化铁红、矿渣、水渣、水泥生料、活性炭、白云石、花岗岩、氧化铁黄、化肥、复合肥、粉煤灰、烟煤、焦煤、褐煤、红泥、粘土、高岭土、焦碳、膨润土、叶蜡石、页岩、玄武岩、石膏、石墨等莫氏硬度在9.3级以下，湿度在6%以下的各种非易燃易爆矿产物料。

This machine can be widely used in the processing of materials in the building materials, chemical industry, metallurgy, mining, abrasives, refractory materials, ceramics, steel, electricity, coal and other industries. It can grind various non-flammable and explosive mineral materials with a Mohs hardness below 9.3 and a humidity below 6%, such as quartz, feldspar, calcite, talc, barite, fluorite, rare earth, marble, ceramics, bauxite, phosphate rock, red iron oxide, slag, slag, cement raw materials, activated carbon, dolomite, granite, yellow iron oxide, fertilizer, compound fertilizer, fly ash, bituminous coal, coking coal, lignite, red mud, clay, kaolin, coke, bentonite, pyrophyllite, shale, basalt, gypsum, graphite, etc.



■ 工作原理 | Operating Principle

主机通过变速箱带动中心轴转动，中心轴上端连接摆动主轴，磨辊通过横臂轴悬挂在摆动主轴下方并形成摆动点，磨辊除随整机中心轴转动外，还与磨环摩擦回转。摆动主轴下方安装有铲刀系统，将物料喂入磨辊与磨环之间的缝隙中，磨辊在旋转过程中进行挤压研磨。气流从磨环底部进入研磨重力区，将细粉带入选粉机，粗物料落下重新研磨，细粉随气流进入集粉器，经排粉管排出即为成品。

The host drives the central shaft running through the gearbox. The upper end of the shaft is connected with a wobbler spindle, and the grinding roller is suspended under the wobbler spindle by a cross arm shaft and forms a swinging point. The grinding roller runs along with the central shaft of the whole machine, and also rotates by friction with the grinding ring. A perching knife system is installed under the wobble spindle and feeds the material into the gap between the grinding roller and ring for pressing and grinding with the grinding roller during rotation. Air flow will bring minor powder into the powder concentrator upon entry into the grinding gravity from the bottom of the grinding ring. Coarse materials fall and are reground, and fine powder goes into the powder collector along with the air flow and is discharged as the finished product through the powder discharge tube.



梅花架
Wobbler spindle

磨辊总成
Roller assembly

铲刀
Blade

Model	Capacity(t/h)	Refilling Grease Cycle(h)	Time Cost for Refilling Grease(h)	Grease Amount Each Time Refilling(kg)
4R3220	2-3	480	2-3	1.5
CRRM1280	3-4	480	2-3	1.5
CRRM1300	5-8	480	2-3	2
CRRM1620A	10-12	480	2-3	3
CRRM1850	18-19	480	2-3	4
CRRM1920	19-20.5	480	2-3	4
CRRM2150	20-22.5	480	2-3	4.5
CRRM2500	27-29	480	2-3	5

■ 产品优势 | Product Advantages

1. 集成减震设计降低振动 | Integrated Damping Design Reduces Vibration
2. 结构创新提升研磨效率 | Structural Innovation Enhances Grinding Efficiency
3. 抗震重型减速机稳定性 | Heavy-Duty Quake-Resistant Reducer Stability
4. 电动/气动风扇阀门控制 | Electric/Pneumatic Fan Valve Control
5. 整体风扇简化维护 | Integrated Fan Simplifies Maintenance
6. 稳定高效环保运行 | Stable High-Efficiency Eco-Friendly Operation
7. 一键智能控制及预警 | One-Touch Intelligent Control & Alerts

■ 技术参数 | Technical Parameters

• 表一 | Table 1

Model		4R3220	1280	1300	1500	1620A	1700	1850	1920	2150	2500
Roller	QTY(pcs)	4	3	4	3	4	4	4	4	4	4
	Size(mm)	320*200	370*240	406*250	450*280	450*300	510*300	510*300	600*300	600*300	600*300
Ring	Outer diameter (mm)	1077	1275	1388.5	1500	1620	1705	1845	1920	2180	2500
	Inner diameter (mm)	970	1170	1270	1380	1500	1580	1720	1770	1980	2300
	Height(mm)	200	240	280	280	300	300	300	300	300	300
Max Feeding Size(mm)		20	20	20	20	30	30	30	35	35	35
Finished Size(mesh)		80-400	80-400	80-400	80-325	80-325	80-325	80-325	80-325	80-325	80-325
Capacity(t/h)		1-6	2-10	2-12	2.5-13	3-15	4-16	4.5-20	5-21	6-22	8-28

• Note: The capacity is based on calcium carbonate (Moh's hardness 3), different materials have different capacity.

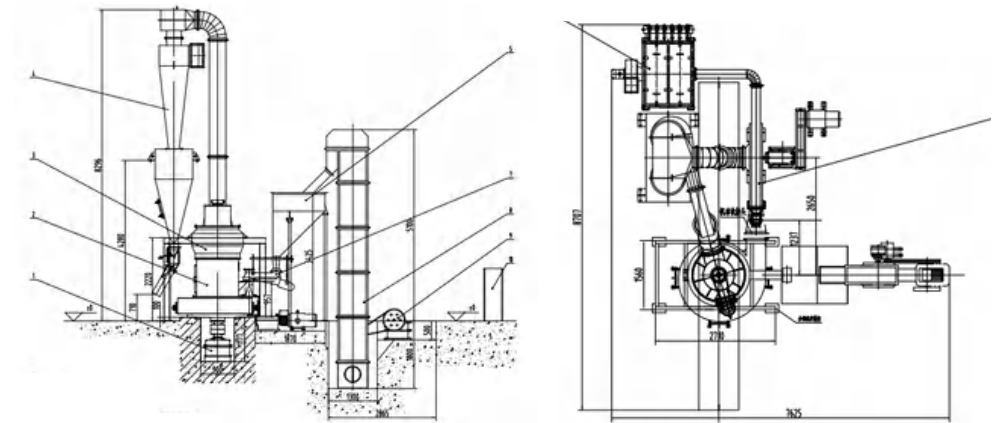
• 表二 | Table 2

Model		4R3220	1280	1300	1500	1620A	1700	1850	1920	2150	2500
Power (KW)	Main Unit	45	55	90	110	160	185	185	250	315	315
	Classifier	15	15	22	22	30	37	37	45	45	45
	Blower	37	55	90	110	132	160	200	220	280	355

• 注：以上数据仅供参考。如需更多配置，请联系销售人员。

• Note: The above data is for reference only. For more information, please contact sales.

■ 客户案例 | Customer Cases



• 客户要求 | Customer's Demands

原料：滑石 成品细度：400目（37微米） 产量：3吨/小时 进料尺寸：60毫米

Raw material: Talc Output Size: 325mesh (45um) Capacity: 3tph Input Size: 60mm

• 客户反馈 | Customer Feedback

设备运行稳定，成品品质始终如一。通过优化生产参数，我们甚至成功实现了800目超细粉末的高产出率，产品细度远超行业平均水平。

The equipment operates stably with consistently reliable product quality. Through parameter optimization, we even achieved a high pass rate of 800-mesh ultra-fine powder, surpassing industry standards in particle fineness.

4R3220 Raymond Mill				
No.	Item	Model	Power (kw)	Qty (Set)
Crushing and Feeding System				
1	Jaw Crusher	PE250*40	15	1
2	Bucket Elevator	TH250	3	1
3	Hopper	1.5m³	-	1
4	Vibrating Feeder	GZ1F	0.06	1
Grinding and Classify System (Standard)				
5	Main Unit	4R3220	-	1
6	Driven System	4R3220	45	1
7	Blower	4R3220	37	1
8	Classifier	4R3220	15	1
9	Pipe System	4R3220	-	1
10	Control Cabinet	4R3220	-	1
11	Pulse Dust Collector	HMC-48	3	1
12	Hanger of Cyclone	4R3220	-	1
Total Power:			118.06KW	

■ 客户现场 | Customer Site



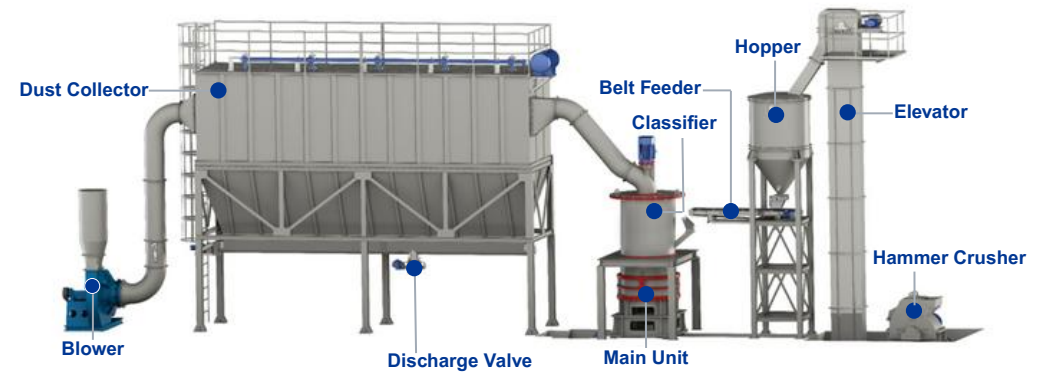
CRGM

Ultrafine Grinding Mill



CRGM系列超细磨粉机标准配置包括主机、分级机、双旋风分离器、脉冲袋式除尘器、风机、电机、管道、消声器。可选配置包括锤式破碎机、提升机、给料机、电控柜。

CRGM series ultrafine grinding mill includes main unit, classifier, double cyclone, Pulse Bag Filter, blower, motor, pipeline and muffler. Optional equipment includes hammer crusher, elevator, feeder and electric control cabinet.



CRGM系列超细磨粉机

CRGM Series Ultrafine Grinding Mill

■ 产品介绍 | Product Introduction

CRGM系列超细磨粉机是我们公司经过多年研发、综合市场上环辊磨的优点而生产的一种新型超细粉碎设备，具有产量高、能耗低、维护简便等特点，是目前干法超细粉碎设备的典范。

CRGM series ultrafine grinding mill is a new type of ultrafine grinding equipment produced by our company after years of research and development and integrating the advantages of roller mills on the market. It has the characteristics of high output, low energy consumption and easy maintenance. It is a model of dry ultrafine grinding equipment.



■ 适用范围 | Scope of Application

该机适用于硬度少于6级脆性物料的粉碎，如重钙（方解石、大理石、白云石等）、重晶石、滑石石膏、石油焦、白炭黑、水镁石、氢氧化铝、白粉、硅灰石、高岭土、膨润土、稀土等物料的粉碎加工。

This machine is suitable for crushing brittle materials with hardness less than 6 levels, such as heavy calcium (calcite, marble, dolomite, etc.), barite, talc, gypsum, petroleum coke, white carbon black, brucite, aluminum hydride, white powder, wollastonite, kaolin, bentonite, rare earth and other materials.



> Calcite



> Dolomite



> Limestone



> Barite



> Talc



> Gypsum



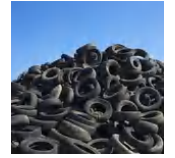
> Bentonite



> Kaolin



> Petroleum coke



> Carbon Black

■ 应用领域 | Application Field



色母粒 | Masterbatch



管材 | Pipe



纸张 | Paper



化妆品 | Cosmetic



天花板 | Ceiling



油漆 | Paint



建筑材料 | Building Materials



人造大理石 | Artificial Marble



轮胎 | Tire



钻井 | Drilling

■ 技术参数 | Technical Parameters

• 表一 | Table 1

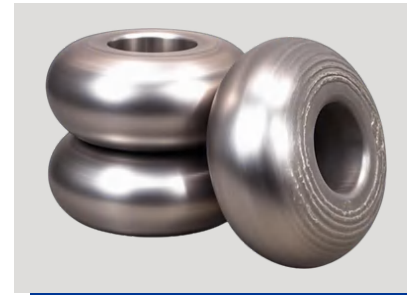
型号 Model	CRGM60	CRGM80	CRGM100	CRGM125
磨环直径 Ring Diameter(mm)	φ600	φ800	φ1000	φ1250
磨环数量 Ring Number(layer)	3	3	4	4
磨辊数量 Roller Number(piece)	12	21	28	32
主轴转速 Main Shaft Speed(r.p.m)	250-280	230-240	180-200	135-155
入料尺寸 Input size(mm)	≤20			
成品细度 Finished Size(um/mesh)	5-74		7-74	
	200-2500		200-2000	
产量 Capacity(t/h)	0.2-3	0.5-4.5	1.8-5	1.5-12
外形尺寸 Overall Dimension(L*W*H/m)	11.5*3.5*5.2	15.9*4.2*6.1	19.7*4.7*7.7	23.2*4.7*7.7
总功率 Motor Power(KW)	101	143	244	401

• 表二 | Table 2

功率 Power(KW)	CRGM60	CRGM80	CRGM100	CRGM125
主机 Main Unit	45	75	132	185
选粉机 Classifier	15	18.5	30	75
风机 Blower	37	45	75	132
卸料阀 Discharging Valve	0.75	0.75*2	1.1	1.5
螺旋输送 Screw Conveyor	2.2	3	4	4

• 注：以上数据仅供参考。如需更多配置，请联系销售人员。
• Note: The above data is for reference only. For more information, please contact sales.

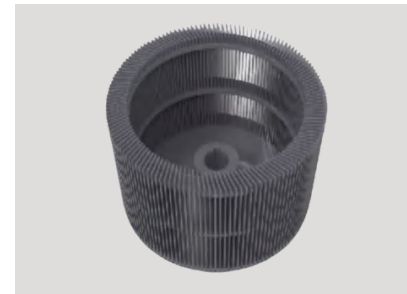
■ 零部件 | Components



► 磨辊 | Roller



► 磨环 | Ring



► 分析机叶轮 | Classifier Impeller



► 轴销 | Pins



► 转盘 | Turn Plate

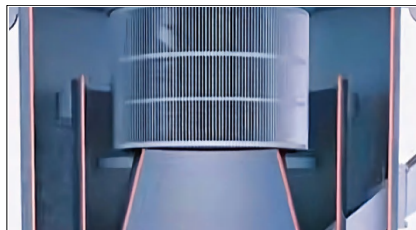
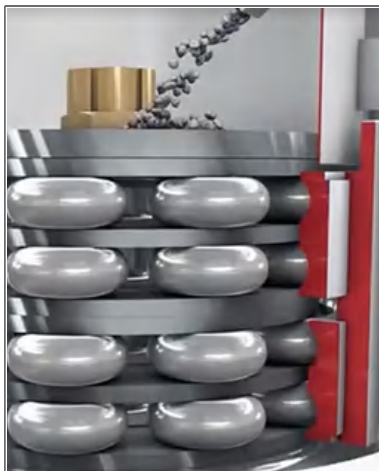
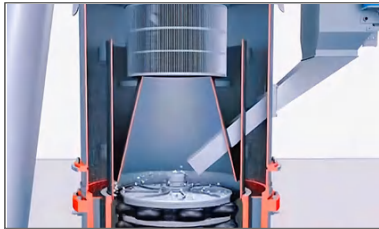


► 滤袋 | Filter Bags

■ 工作原理 | Operating Principle

本系统采用多级辊磨工艺实现物料超细粉碎。主机驱动多层转盘带动环辊在磨道内滚动，破碎后的物料经离心分散后依次通过三层研磨区。高压风机将粉体输送至选粉机分级，合格细粉经旋风收集器排出，粗粉回流再磨，含尘尾气经脉冲除尘净化后排放。

This system adopts multi-stage roller milling for ultrafine grinding. The main motor drives multi-layer turntables to rotate ring rollers in grinding tracks. Crushed materials are centrifugally dispersed through three grinding zones. A high-pressure fan conveys powder to a classifier where qualified fines are discharged via cyclone collector, while coarse particles recirculate. Dust-laden exhaust is purified through pulse dust removal before emission.



■ 技术优势 | Technical Advantages

1. 高效低能耗，比气流磨等产量高出一倍以上，而能耗低30%。
• High efficiency and low energy consumption, with a capacity more than twice that of jet mills, while the energy consumption is 30% lower.
2. 磨辊磨环采用特殊材料锻制而成，耐用程度提高数倍。
• The roller and ring are forged from special materials, enhancing durability several times over.
3. 高效立涡轮选粉机，效率高，切割粒径准，无跑粗粉现象。
• The efficient vertical turbine powder classifier demonstrates high efficiency, precise cutting size, and no spillover of coarse powder.
4. 变频控制，调节控制方便快捷，一次成品可达 $D_{97} \leq 5\mu m$ 。
• VFD control allows for convenient and quick adjustment, achieving finished products of $D_{97} \leq 5\mu m$ in one pass.
5. 隔音房和消声器的优化设计，有效控制设备噪声的传播。
• The optimized design of the sound insulation room and muffler effectively controls the transmission of equipment noise.

■ 客户现场 | Customer Site



European Version of Coarse Grinding Mill



■ 结构及工作原理 | Structure and Working Principle

欧版粗粉磨主要由机壳、转子、承击铁和篦条等部件组成。机壳分上下两部分，由钢板切割后焊接而成，其余各部分用螺栓连接成一体。机壳内部镶有高锰钢衬板，磨损后方便更换；其主轴上安装有数组重量均匀的板锤，由高强度螺栓紧固。主机通过电机、三角皮带带动主轴，从而使转子旋转，大块物料从进料口进入破碎腔之后，并被高速运动的锤子击碎。破碎合格的物料则由下部有缝隙的篦条排出，不合格的则留在破碎腔内，被转子和板锤反复破碎，直至能够合格排出。为避免堵塞，被粉碎物料的含水量一般不超过20%。

The European version coarse grinding mill is mainly characterized by casing, rotor, bearing, hammer, and grate bars, and other components. Upper and lower case in two parts, welded together by a steel plate after cutting, the remaining parts bolted into one. Set with high-manganese steel liner inside the case, to facilitate replacement of worn parts; its array of rules installed on the spindle distribution of the hammer, hammer and rotary table, and through the rotor shaft formed. The host through a motor, V-belt V-belt-driven spindle, so that the rotor rotates, hammer is stretched by the centrifugal force generated by rotation around the stretch, stretching bulk materials from the feed inlet into the crushing chamber. The high-speed movement of the hammer will crush. Broken by passing the material under.

欧版粗粉磨

European-version Coarse Grinding Mill

■ 产品用途 | Product Use

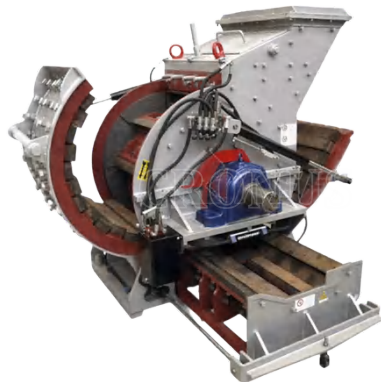
欧版粗粉磨广泛应用于冶金、矿山、化工、水泥、煤干石、建筑、制砂、耐火材料及陶瓷等工矿企业中，从事物料中碎和细碎作业。它主要适宜破碎抗压强度不高于320MPa【兆帕】的各种软硬矿石。

European version of coarse grinding mill widely used in metallurgyminng, chemical, cement, coal, dry stone, construction, sand, refractories, and ceramic industrial and mining enterprises, engaged in breaking and crushing the material in the operation. It is mainly suitable for crushing compression strength not higher than 320MPa【MPa】 of various soft and hard ore.

■ 产品特点 | Product features

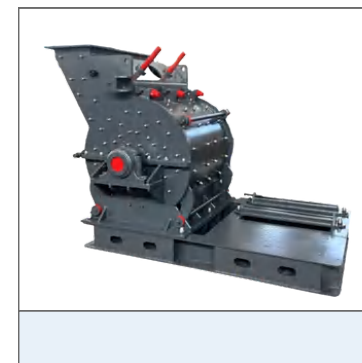
1. 生产能力高、破碎比大；
2. 电耗低、产品粒度均匀；
3. 机械结构简单、紧凑轻便；
4. 投资费用少、管理方便等优点。

- The production capacity, high crushing ratio.
- Low power consumption, uniform particle size.
- Mechanical structure is simple, compact, and lightweight.
- Low investment costs, management, and convenience.



■ 技术参数 | Technical Parameters

型号 Model	PC4008-75	PC4012-90	PC4012-90L	PC4015-132
转子直径 Rotor diameter (mm)	750	900	900	1150
转子长度 Rotor length (mm)	800	1200	1250	1500
转子转速 Rotor speed (mm)	800-1000	800-1000	960-1000	550*800
进料口尺寸 Feed port size (mm)	320*930	400*1200	380*1450	500*1500
最大给料粒度 Maximum feed size (mm)	50	50	50	100
出料粒度 Discharge size (mm)	0-3	0-3	0-3	0-8
产量 Capacity (t/h)	10-30	30-60	50-100	60-100
电动机功率 Motor power (kw)	55-75	75-90	55-75*2	110-132
锤头数量 Number of hammers (pcs)	18	32	40	32
外形尺寸 Overall dimensions (mm)	2310*1665*1610	2840*2100*2020	3000*2600*2070	3720*2650*2540



相关设备 Associated Equipment



Hammer Crusher



Jaw Crusher



Elevate



Pulse Dust Collector



Belt Conveyor



Air Compressor



Packing Machine



Jumbo Packing Machine

客户来访 Customer Visit



荣誉与证书 Honors and Certificates

筛网与目数对照表

Comparison table for particle size
and screen mesh



CE



CQC



ISO9001



目数(mesh)	微米(μm)	目数(mesh)	微米(μm)
2	8000	100	150
3	6700	115	125
4	4750	120	120
5	4000	125	115
6	3350	130	113
7	2800	140	109
8	2360	150	106
10	1700	160	96
12	1400	170	90
14	1180	175	86
16	1000	180	80
18	880	200	75
20	830	230	62
24	700	240	61
28	600	250	58
30	550	270	53
32	500	300	48
35	425	325	45
40	380	400	38
42	355	500	25
45	325	600	23
48	300	800	18
50	270	1000	13
60	250	1340	10
65	230	2000	6.5
70	212	5000	2.6
80	180	8000	1.6
90	160	10000	1.3